

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An electromagnetic wave irradiation tool comprising:
a cylindrical narrow tube configured to be inserted in a biological body, ~~defined by an~~
~~outside diameter of 0.1 mm—20 mm~~, including:

an electromagnetic wave irradiation terminal configured to irradiate an
electromagnetic wave of terahertz band having a frequency equal to a characteristic
frequency of a cell of an inner portion of the biological body at the top end of the
narrow tube so as to excite the cell by the electromagnetic wave emitted from the
electromagnetic wave irradiation terminal, and

a high frequency transmission line embedded in the narrow tube, configured to
transmit the electromagnetic wave to the electromagnetic wave irradiation terminal
from the bottom end of the narrow tube; and

an electromagnetic wave generation unit configured to generate the electromagnetic
wave and to supply the electromagnetic wave to the high frequency transmission line.

Claim 2 (Previously Presented): The electromagnetic wave irradiation tool of claim
1, wherein the narrow tube further comprises a temperature detecting unit embedded in the
narrow tube, configured to detect temperature of the cell.

Claim 3 (Currently Amended): An electromagnetic wave irradiation tool comprising:
a cylindrical narrow tube configured to be inserted in a biological body, ~~defined by an~~
~~outside diameter of 0.1 mm—20 mm~~, including:

an electromagnetic wave irradiation terminal configured to irradiate an
electromagnetic wave of terahertz band having a frequency equal to a characteristic

frequency of a cell of an inner portion of the biological body at the top end of the narrow tube so as to excite the cell by the electromagnetic wave emitted from the electromagnetic wave irradiation terminal,

a high frequency transmission line embedded in the narrow tube, configured to transmit the electromagnetic wave to the electromagnetic wave irradiation terminal from the bottom end of the narrow tube, and

a frequency adjustment device embedded in the narrow tube, configured to adjust the frequency of the electromagnetic wave being irradiated to the cell so as to follow a change of the characteristic frequency; and

an electromagnetic wave generation unit configured to generate the electromagnetic wave and to supply the electromagnetic wave to the high frequency transmission line.

Claim 4 (Original): The electromagnetic wave irradiation tool of claim 1, wherein the electromagnetic wave generation unit irradiates simultaneously electromagnetic waves having different frequencies.

Claim 5 (Previously Presented): An electromagnetic wave irradiation tool comprising:

an antenna-supporting member;

a plurality of antennas provided on the antenna-supporting member; and

a blanded high frequency transmission line configured to deliver an electromagnetic wave of terahertz band having a frequency equal to a characteristic frequency of a cell of biological body to each of the plurality of antennas; and

an electromagnetic wave generation unit configured to supply the electromagnetic wave to the high frequency transmission line so as to excite the cell by the electromagnetic wave emitted from the plurality of antennas.

Claim 6 (Previously Presented): An electromagnetic wave irradiation tool comprising:

an antenna-supporting member;

an antenna provided on the antenna-supporting member; and

an electromagnetic wave generation unit configured to supply an electromagnetic wave having a frequency equal to a characteristic frequency of a cell of biological body,

wherein the electromagnetic wave generation unit further comprises a frequency adjustment device configured to adjust the frequency of the electromagnetic wave being irradiated to the cell so as to follow a change of the characteristic frequency.

Claim 7 (Original): The electromagnetic wave irradiation tool of claim 5, wherein the electromagnetic wave generation unit irradiates simultaneously electromagnetic waves having different frequencies.

Claim 8 (Previously Presented): An electromagnetic wave irradiation tool comprising:

a blood irrigation system including:

a blood-draw line configured to draw blood from a biological body, and

a blood-return line configured to return the blood to the biological body;

an electromagnetic wave irradiation unit configured to irradiate an electromagnetic wave of terahertz band having a frequency equal to a characteristic frequency of a cell of

biological body existing in the blood in the blood-draw line so as to excite the cell by the electromagnetic wave; and

an electromagnetic wave generation unit configured to supply the electromagnetic wave to the electromagnetic wave irradiation unit.

Claim 9 (Previously Presented): An electromagnetic wave irradiation tool comprising:

a blood irrigation system having:

a blood-draw line configured to draw blood from a biological body, and

a blood-return line configured to return the blood to the biological body;

an electromagnetic wave irradiation unit configured to irradiate an electromagnetic wave having a frequency equal to a characteristic frequency of a cell of biological body existing in the blood in the blood-draw line; and

an electromagnetic wave generation unit configured to supply the electromagnetic wave to the electromagnetic wave irradiation unit,

wherein the electromagnetic wave generation unit further comprises a frequency adjustment device configured to adjust the frequency of the electromagnetic wave being irradiated to the cell so as to follow a change of the characteristic frequency.

Claim 10 (Original): The electromagnetic wave irradiation tool of claim 8, wherein the electromagnetic wave generation unit irradiates simultaneously electromagnetic waves having different frequencies.

Claim 11 (Previously Presented): The electromagnetic wave irradiation tool of claim 1, wherein the electromagnetic wave generation unit generates the electromagnetic wave of one THz to 100THz.

Claim 12 (Previously Presented): The electromagnetic wave irradiation tool of claim 1, wherein the cell is an abnormal cell, caused by parasitism of microorganism, or by mutation.

Claim 13 (Previously Presented): The electromagnetic wave irradiation tool of claim 12, wherein the electromagnetic wave generation unit adjusts the frequency to a resonance frequency of the abnormal cell so as to cause selectively a resonance state of the abnormal cell, so that normal cells around the abnormal cell are not excited by the electromagnetic wave.

Claim 14 (Previously Presented): The electromagnetic wave irradiation tool of claim 5, wherein the electromagnetic wave generation unit generates the electromagnetic wave of one THz to 100THz.

Claim 15 (Previously Presented): The electromagnetic wave irradiation tool of claim 5, wherein the cell is an abnormal cell, caused by parasitism of microorganism, or by mutation.

Claim 16 (Previously Presented): The electromagnetic wave irradiation tool of claim 15, wherein the electromagnetic wave generation unit adjust the frequency to a resonance frequency of the abnormal cell so as to cause selectively a resonance state of the abnormal

cell, so that normal cells around the abnormal cell are not excited by the electromagnetic wave.

Claim 17 (Previously Presented): The electromagnetic wave irradiation tool of claim 8, wherein the electromagnetic wave generation unit generates the electromagnetic wave of one THz to 100THz.

Claim 18 (Previously Presented): The electromagnetic wave irradiation tool of claim 8, wherein the cell is an abnormal cell, caused by parasitism of microorganism, or by mutation.

Claim 19 (Previously Presented): The electromagnetic wave irradiation tool of claim 18, wherein the electromagnetic wave generation unit adjusts the frequency to a resonance frequency of the abnormal cell so as to cause selectively a resonance state of the abnormal cell, so that normal cells around the abnormal cell are not excited by the electromagnetic wave.